



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2020–0042; FF09E21000 FXES11110900000 212]

RIN 1018–BD94

Endangered and Threatened Wildlife and Plants; Endangered Species Status for the Peñasco Least Chipmunk and Designation of Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the Peñasco least chipmunk (*Neotamias minimus atristriatus*), a mammal from New Mexico, as an endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the Peñasco least chipmunk as an endangered species under the Act. If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act's protections to the species. We also propose to designate critical habitat for the Peñasco least chipmunk under the Act. The proposed critical habitat designation includes approximately 2,660 hectares (6,574 acres) in three units in New Mexico. We also announce the availability of a draft economic analysis of the proposed designation of critical habitat.

DATES: We will accept comments on the proposed rule or draft economic analysis that are received or postmarked on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by

11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<https://www.regulations.gov>. In the Search box, enter the docket number or RIN for this rulemaking (presented above in the document headings). For best results, do not copy and paste either number; instead, type the docket number or RIN into the Search box using hyphens. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment.”

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R2–ES–2020–0042, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on <https://www.regulations.gov>. This generally means that we will post any personal information you provide us (see *Public Comments*, below, for more information).

Availability of supporting materials: For the critical habitat designation, the coordinates or plot points or both from which the maps are generated are included in the administrative record and are available on the New Mexico Ecological Services Field Office website at <https://www.fws.gov/southwest/es/NewMexico/> and at <https://www.regulations.gov> under Docket No. FWS–R2–ES–2020–0042. Any additional tools or supporting information that we may develop for the critical habitat designation

will also be available at the Service website set out above and may also be included in the preamble and/or at <https://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Shawn Sartorius, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna Road NE, Albuquerque, NM 87113; telephone 505–346–2525. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, if we determine that a species is an endangered or threatened species throughout all or a significant portion of its range, we are required to promptly publish a proposal in the *Federal Register* and make a determination on our proposal within 1 year. To the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species under the Act. Listing a species as an endangered or threatened species and designation of critical habitat can be accomplished only by issuing a rule.

What this document does. We propose to list the Peñasco least chipmunk as an endangered species under the Act, and we propose the designation of critical habitat for the species.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species based on any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that

stressors affecting the viability of the Peñasco least chipmunk include vegetation shifts, wildfire, forest encroachment, recreation, development, and land use (Factor A, disease (Factor C), nonnative species (Factors A and C), and small population size and lack of connectivity (Factor E).

Although small population size is the primary stressor to the Peñasco least chipmunk, *Risk Factors for Peñasco Least Chipmunk*, below, presents a broader discussion of the threats. We have found that existing regulatory mechanisms do not adequately reduce the threats acting on the species to eliminate the risk of extinction (Factor D).

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Peer review. In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of five appropriate specialists regarding the species status assessment report. We received comments from three, and their input informed this proposed rule.

The purpose of peer review is to ensure that our listing and critical habitat designations are based on scientifically sound data, assumptions, and analyses. Additionally, we received reviews from several partners, including the State of New Mexico and U.S. Forest Service.

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species is threatened instead of endangered, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. For critical habitat, our final designation may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, and may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion.

Information Requested

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

- (1) The species' biology, range, and population trends, including:
 - (a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;
 - (b) Genetics and taxonomy;
 - (c) Historical and current range, including distribution patterns;
 - (d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(2) Factors that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to the species and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of the species, including the locations of any additional populations.

(5) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including information to inform the following factors that the regulations identify as reasons why designation of critical habitat may be not prudent:

(a) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(b) The present or threatened destruction, modification, or curtailment of a species’ habitat or range is not a threat to the species, or threats to the species’ habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(c) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States; or

(d) No areas meet the definition of critical habitat.

(6) Specific information on:

(a) The amount and distribution of Peñasco least chipmunk habitat;

(b) What areas, that were occupied at the time of listing (*i.e.*, are currently occupied) and that contain the physical or biological features essential to the conservation of the species, should be included in the designation and why;

(c) Any additional areas occurring within the range of the species, *i.e.*, the Sacramento and White Mountains in New Mexico, that should be included in the designation because they (1) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations, or (2) are unoccupied at the time of listing and are essential for the conservation of the species;

(d) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(e) What areas not occupied at the time of listing are essential for the conservation of the species. We particularly seek comments:

(i) Regarding whether occupied areas are adequate for the conservation of the species;

(ii) Providing specific information regarding whether or not unoccupied areas would, with reasonable certainty, contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species; and

(iii) Explaining whether or not unoccupied areas fall within the definition of “habitat” at 50 CFR 424.02 and why.

(7) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(8) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the related benefits of including or excluding specific areas.

(9) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts.

(10) Information on land ownership within proposed critical habitat areas, particularly Tribal land ownership (allotments, trust, and/or fee) so that the Service may best implement Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act).

(11) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. Specific information we seek includes information on any conservation plans within the proposed designated critical habitat areas that provide conservation for the Peñasco least chipmunk and its habitat. For any additional areas that you may request be excluded from the designation, we will undertake an exclusion analysis if you provide credible information regarding the existence of a meaningful economic or other relevant impact supporting a benefit of inclusion or if we otherwise decide to exercise the discretion to evaluate the areas for possible exclusion.

(12) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(13) Ongoing or proposed conservation efforts that could result in direct or indirect ecological benefits to the associated habitat for the species; as such, those efforts

would lend to the recovery of the species and therefore areas covered may be considered for exclusion from the final critical habitat designation.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made “solely on the basis of the best scientific and commercial data available.”

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <https://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <https://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <https://www.regulations.gov>.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified above in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION**

CONTACT. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the *Federal Register* and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the *Federal Register*. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

WildEarth Guardians petitioned us to list Peñasco least chipmunk in October 2011. The Service published a substantial 90-day finding and a warranted but precluded 12-month finding on November 21, 2012 (77 FR 69994), stating that listing of the subspecies was warranted due to the present or threatened destruction, modification, or curtailment of its habitat or range and the fragmentation and isolation of small populations. In 2018, we completed a species status assessment (SSA) to provide the biological support for a decision on whether or not to propose to list the subspecies as threatened or endangered under the Act and, if so, where to propose designating critical habitat. This proposed listing rule also constitutes our 12-month petition finding for the species.

Supporting Documents

A species status assessment (SSA) team prepared an SSA report for the Peñasco least chipmunk. The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species. The Service sent the SSA report to five independent peer reviewers, and three provided a review of the document. The Service also sent the SSA report to three partner agencies,

including the State of New Mexico, U.S. Forest Service, and the Mescalero Apache Tribe, for review. We received reviews from the U.S. Forest Service and the State of New Mexico.

I. Proposed Listing Determination

Background

The Peñasco least chipmunk (*Neotamias minimus atristriatus*) is currently recognized as one of 17 subspecies of least chipmunk (*Neotamias [=Tamias] minimus*) (Wilson and Reeder 2005, p. 815). Least chipmunks are smaller than most other chipmunk species and belong to the family Sciuridae. The Peñasco least chipmunk is known from the Sacramento Mountains and White Mountains in Lincoln and Otero Counties in southern New Mexico.

Peñasco least chipmunks are grayish-brown mixed with cinnamon-buff on the rump and thighs (Sullivan 1993, p. 1), with a blackish head with white and cinnamon, and a whitish patch behind each ear. The sides of their bodies are light brown, and underparts are whitish with buff; their feet are light pink-cinnamon; the tail is blackish or brown with pinkish-cinnamon; and dark stripes on the back and head are blackish to blackish-brown, edged with tawny along the spine, and bordered with white on the face and sides (Sullivan 1993, pp. 1–2). The Peñasco least chipmunk has pale yellowish orange hindfeet, a light beige, yellowish, or orange belly, and dark underfur (Frey 2010, p. 11). A full species description and description of its habitat can be found in chapter 2 of the SSA report.

The Peñasco least chipmunk was first described as a new species, *Eutamias atristriatus*, in 1913 based on 10 specimens collected from ponderosa pine forest in the Sacramento Mountains in 1902 (Bailey 1913, entire). This taxonomy has been revised multiple times as the taxonomy of chipmunks and least chipmunks changed, including use of the synonyms *Eutamias* and *Tamias* for *Neotamias*. Howell (1929, entire)

designated the taxon a subspecies of least chipmunk, *Tamias minimus atristriatus*. Conley (1970, entire) purported that the South Sacramento (= Sacramento Mountains) population was the only population of least chipmunks in New Mexico worthy of nomenclatural distinction based on morphological distinctiveness. However, Sullivan and Peterson (1988, p. 21) recommended the retention of *N. m. atristriatus* as a subspecies that included both the New Mexico White Mountains and Sacramento Mountains, based on more in-depth morphological and genetic analyses. Verts and Carraway (2001, entire) and Wilson and Reeder (2005, p. 815) continue to support *N. m. atristriatus* as a recognized subspecies of *N. minimus*. Least chipmunks are currently recognized as belonging to the genus *Neotamias* (Patterson and Norris 2016, p. 248). There is currently no disagreement regarding the distinctiveness of the subspecies from other subspecies of least chipmunk, nor from the sympatric gray-footed chipmunk (*N. canipes*). The Peñasco least chipmunk is thus currently recognized as a valid subspecies, *N. minimus atristriatus* (Wilson and Reeder 2005 p. 815).

Habitat occupied by Peñasco least chipmunk varies by population between the Sacramento and White Mountains. In the Sacramento Mountains, Peñasco least chipmunk habitat use has generally been mature, open ponderosa pine forest savanna and adjacent valley meadows (Frey and Hays 2017, p. 1). Specimens of the Peñasco least chipmunk from the Sacramento Mountains were originally described from the yellow pine zone (= ponderosa pine) (Bailey 1913, p. 130) and within the transition zone from the juncture of yellow pines and junipers up to the edge of spruce-fir forest (Bailey 1931, p. 91). However, the Peñasco least chipmunk has not been detected in the Sacramento Mountains since 1966, so our understanding of habitat use and distribution in that area is limited to historical records and reports.

In the White Mountains, the Peñasco least chipmunk is associated with the high-elevation subalpine Thurber's fescue meadow biotic community (Frey and Hays 2017, p.

34). This habitat is distinctly different from the lower elevation, montane meadow grassland communities within mixed conifer and ponderosa pine forest zones (Dyer and Moffett 1999, entire; Dick-Peddie 1993, pp. 101–104), as would be found in the Sacramento Mountains. In the White Mountains, our understanding of subspecies occurrence and habitat use is informed by capture information as recent as 2018, but is still limited by few observational records of the subspecies.

Least chipmunks forage mainly on the ground or in shrubs (Hoffmeister 1986, p. 15). They eat a variety of seeds of shrubs, forbs, and some conifers, and other plant parts and fungi as their main food sources; they also feed on animal foods such as arthropods, carrion, and bird eggs (Bailey 1931, p. 91; Vaughn 1974, pp. 770–772; Reid 2006, p. 212). The least chipmunk does not develop additional fat deposits in the fall, but relies primarily on brief periods of activity to consume cached food for survival over the winter (Verts and Carraway 2001, p. 7), hibernating (in this case, overwintering with periods of both torpor and activity) in special underground chambers (Reid 2006, p. 212). Peñasco least chipmunks in the White Mountains likely forage primarily on the seeds and flowers of forbs, particularly species of Asteraceae (Frey and Hays 2017, p. 34). Bailey (1931, p. 91) observed the subspecies foraging on sunflower (*Helianthus* spp.) seeds along fencelines and on wheat (*Triticum* sp.) and oats (*Avena sativa*) at the edges of agricultural fields in the Sacramento Mountains. The diet also includes flowers and fruits of gooseberry (*Ribes* spp.) and wild strawberry (*Fragaria* spp.), pinyon (*Pinus edulis*) nuts, Gambel oak (*Quercus gambelii*) acorns, insects, and other items (Sullivan 1993, p. 3). Like other least chipmunks, the Peñasco least chipmunk likely has relatively low water requirements, which may allow it to exploit the drier conditions of open subalpine meadows (Frey and Hays 2017, p. 34).

Least chipmunk breeding takes place soon after emergence from the hibernation chambers (Reid 2006, p. 212). In spring, females typically produce one litter of four to

five pups (Skryja 1974, p. 223), but the size of the litter can range from three to eight, with young being born in May or June (Reid 2006, p. 212). For Peñasco least chipmunks, young are thought to be born in mid- to late-summer, as half-grown juveniles were observed historically in early September in the Sacramento Mountains (Bailey 1931, p. 91). The average lifespan of least chipmunks overall is 0.7 years (Erlien and Tester 1984, p. 2), but individuals have been known to live up to 6 years (Reid 2006, p. 212).

REGULATORY AND ANALYTICAL FRAMEWORK

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an “endangered species” or a “threatened species.” The Act defines an endangered species as a species that is “in danger of extinction throughout all or a significant portion of its range,” and a threatened species as a species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Act requires that we determine whether any species is an “endangered species” or a “threatened species” because of any of the following factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species’ continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals

of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as the Services can reasonably determine that both the future threats and the species’ responses to those

threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’ biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent a decision by the Service on whether the species should be proposed for listing as an endangered or threatened species under the Act. It does, however, provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R2–ES–2020–0042 on <https://www.regulations.gov> and on the New Mexico Ecological Services Field Office website at <https://www.fws.gov/southwest/es/NewMexico/>.

To assess Peñasco least chipmunk viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand

environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

Summary of Analysis

To evaluate the current and future viability of the Peñasco least chipmunk, we assessed a range of conditions to allow us to consider the species' resiliency,

representation, and redundancy. To maintain long-term viability, Peñasco least chipmunk requires multiple (redundancy) self-sustaining populations (resiliency) distributed across the landscape (representation). Maintaining representation in the form of genetic or ecological diversity is important to maintain the Peñasco least chipmunk's capacity to adapt to future environmental changes.

Current Condition of Peñasco Least Chipmunk

To analyze population-level resiliency, we identified and described the demographic and habitat conditions needed for resilient populations of Peñasco least chipmunk (Table 1). The demographic factors we analyzed include trap rate, population trends, connectivity between populations, and number of subpopulations within populations. The habitat factors we analyzed include suitable habitat size to support population viability, habitat availability trends, and habitat. For each of these demographic and habitat factors, we characterized the condition (High, Moderate, Low, and Very Low/Extirpated) of each factor for each population (Table 1) to assess overall population resiliency. Where more data were available, we assigned scores (High = 1, Moderate = 0, Low = -1, and Very Low/Extirpated = -2) to each demographic and habitat factor and calculated an overall score for each population. We averaged all of the demographic and habitat condition category scores for each population to determine the overall resiliency score for that population (Service 2018, p. 64).

Table 1. Population resiliency category definitions for Peñasco least chipmunk.

High (1)	Moderate (0)	Low (-1)	Very Low/Extirpated (-2)
<ul style="list-style-type: none"> • density or relative abundance is high • population is increasing over time • there is connectivity between the populations • the number of subpopulations is high, spatially dispersed, and able to withstand or recover from stochastic events • large, contiguous areas of increasing availability of suitable habitat with no detectable impacts from land use or management 	<ul style="list-style-type: none"> • density or relative abundance is moderate • population is stable over time • populations are adjacent to each other, but unsuitable habitat precludes dispersal • multiple subpopulations, allowing for some ability to withstand or recover from stochastic events • areas of moderately sized habitat with some isolated habitat patches • land use or management occurs but does not significantly limit chipmunk resources 	<ul style="list-style-type: none"> • density or relative abundance is low • population is decreasing over time but still extant • populations are extremely isolated from one another • two subpopulations allow for some, but limited, ability to withstand or recover from stochastic events • habitat occurs as small isolated patches • land use or management reduces chipmunk resources 	<ul style="list-style-type: none"> • abundance decreases over time, such that population may be extirpated completely • no connectivity with other populations exists • if extant, no subpopulation structure occurs • little to no suitable habitat is available • if patches exist, they are small and isolated and will lead or have led to high probability of extirpation • land use or management removes chipmunk resources

The current condition of each demographic and habitat factor and the overall condition of each population of the Peñasco least chipmunk is displayed in Table 2. Historically, there were two known populations of Peñasco least chipmunk, the Sacramento Mountains population and the White Mountains population. Based on the demographic and habitat factors discussed in detail in the SSA (Service 2018, pp. 60–62), the Sacramento Mountains population is considered to be in Very Low/Extirpated overall condition. There have been no detections of Peñasco least chipmunk in the Sacramento Mountains since 1966, despite extensive survey effort, indicating that this population is likely extirpated. Even if it is still extant, it has no connectivity with other populations and likely no subpopulation structure (Service 2018, p. 11). The Sacramento Mountains have little to no remaining suitable habitat, and land use and management have severely decreased the condition of the resources upon which Peñasco least chipmunk depends.

For the White Mountains population, current habitat availability is moderate. Habitat has experienced a moderate change from historical conditions, and land use or management is not known to significantly reduce Peñasco least chipmunk resources. However, in terms of demographic factors, the White Mountains population has a low density and decreasing population trend. The population is the only remaining population of the subspecies, and the White Mountains population has no known subpopulation structure. Given these Low and Very Low condition demographic factors, the White Mountains population is in Low overall condition. The current resiliency of Peñasco least chipmunk is low to very low, with one population likely extirpated and the remaining population isolated with no subpopulation structure.

Maintaining representation in the form of genetic or ecological diversity is important to preserve the capacity of the Peñasco least chipmunk to adapt to future environmental changes. Because one of the two populations of Peñasco least chipmunk is

likely extirpated, and the extant population persists in extremely low numbers, genetic diversity is likely extremely low. Peñasco least chipmunks in the White Mountains showed the lowest levels of within-population genetic variation out of nine least chipmunk populations in New Mexico, Arizona, and Colorado (Sullivan 1985, pp. 431–433). In addition, the subspecies has a historical distribution in two very different ecological settings: one in a high-elevation subalpine meadow zone in the White Mountains, and one in a lower elevation ponderosa pine zone in the Sacramento Mountains. Because the Sacramento Mountains may no longer support the subspecies, the Peñasco least chipmunk has already lost ecological representation across its range. Low genetic variation and the loss of one ecological setting results in low representation for the Peñasco least chipmunk (Service 2018, p. 65).

To be robust in the face of stochastic events, the Peñasco least chipmunk needs to have at least two resilient populations (Service 2018, p. 64). Historically there were only two known populations, one each in the White and Sacramento Mountains. Generally, the more populations a species has, and the wider the distribution of those populations, the more redundancy the species will exhibit. Redundancy reduces the risk that a large portion of the species' range will be negatively affected by a catastrophic natural or anthropogenic event (*e.g.*, wildfire) at a given point in time. Species (or subspecies) that are well-distributed across a wide geographic range are less susceptible to extinction and more likely to be viable than taxa that are confined to small areas where stochastic events are likely to affect all of the individuals simultaneously (Carroll et al. 2010, entire). Because one of the two populations of Peñasco least chipmunk is likely extirpated, the Peñasco least chipmunk currently lacks any redundancy (Service 2018, p. 65).

Table 2. Current resiliency of the Peñasco least chipmunk populations.

Population	Demographic Factors				Habitat Factors			Condition Category
	Trap Rate (# Individuals/ Trap Hour) Surrogate for Density	Population Trends	Population Connectivity	Subpopulations within Populations	Available Suitable Habitat to Support Population Persistence	Habitat Availability Trends	Habitat Condition with Land Use or Management	
White Mountains	Low	Low	Very Low	Very Low	Moderate	Moderate	Moderate	Low
	-1.5	-1	-2	-2	0	0	0	-1
Sacramento Mountains	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low	Very Low
	-2	-2	-2	-2	-2	-2	-2	-2

See the SSA report for the complete current condition analysis for the Peñasco least chipmunk (Service 2018, pp. 54–65).

Risk Factors for Peñasco Least Chipmunk

We evaluated the past, current, and future stressors that affect the Peñasco least chipmunk's needs for long-term viability. Additionally, we evaluated several potential stressor sources that are not described here because the stressor source is predicted to have low impact on Peñasco least chipmunk viability. More information on these stressors, including interspecific competition, scientific collection, and climate change can be found in the SSA (Service 2018, pp. 50-52).

Stressors affecting the viability of the Peñasco least chipmunk include vegetation shifts, wildfire, forest encroachment, recreation, development, and land use (Factor A, disease (Factor C), nonnative species (Factors A and C), and small population size and lack of connectivity (Factor E). Considerations under Factor D are described below.

Peñasco least chipmunk habitat is afforded some protection under the Wilderness Act of 1964 (16 U.S.C. 1131 1136). Within the White Mountains, approximately 54 percent of the current range of the Peñasco least chipmunk is within the Lincoln National Forest White Mountain Wilderness Area. This designation limits management options and conservation efforts in designated wilderness areas to some degree. The Wilderness Act states that wilderness should be managed to preserve its natural conditions and yet remain untrammeled by man, and defines wilderness "... as an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation..." (16 U.S.C. 1131 1136). Within designated wilderness areas, no commercial activities are permitted, no permanent or temporary roads, no motorized equipment or any form of mechanical transport, and no structures are permitted within the area (16 U.S.C. 1131-1136). Habitat for the Peñasco least chipmunk appears to be relatively unaltered in the White Mountains Wilderness Area, except for the

encroachment of trees into meadows (Service 2018, p. 35).

Additionally, the range of the Peñasco least chipmunk overlaps with designated Mexican spotted owl critical habitat; the management of that habitat for the Mexican spotted owl does allow for some level of grazing. This may result in changes to the plant community that do not adversely affect the prey base of the Mexican spotted owl but is detrimental to the specific plant community needs of the Peñasco least chipmunk (Service 2018, pp. 38-40).

Vegetation Shifts, Wildfire, and Forest Encroachment

Over the last ~150 years, land management practices have shifted the vegetative components of Peñasco least chipmunk habitat in the Sacramento Mountains, resulting in an overall lack of suitable habitat for the subspecies. The historically open, park-like stands of ponderosa pine forest that comprised Peñasco least chipmunk habitat have been replaced with high-density, small-diameter ponderosa pine, with encroaching Douglas fir (*Pseudotsuga menziesii*) and white fir (*Abies concolor*), and a lack of native grass meadow habitat (Service 2018, pp. 39–41).

These changes in vegetation composition (inclusion of less fire-tolerant species of trees such as Douglas fir and white fir) and structure (from low-density, large-diameter trees with few low branches to high-density, small-diameter trees with many low branches), coupled with the loss and conversion of native to nonnative grass meadows, alter the suitability of the habitat for the Peñasco least chipmunk in the Sacramento Mountains. Effective fire exclusion and suppression actions have also contributed to the changes in forest composition and structure and have resulted in the additional stressor source of altered fire regimes.

Forest encroachment into grasslands is occurring in both the Sacramento Mountains and in the White Mountains, although the causes for each are likely different. The causes for tree encroachment into meadows in the Sacramento Mountains is likely

related to land use and land management practices, while the White Mountains are influenced by climatic events and successional encroachment processes. While some landscape restoration projects are planned (i.e., the South Sacramento Forest Restoration Project) that may address some areas of meadow encroachment, no additional projects are planned within the historical range of the Peñasco least chipmunk either in the Sacramento Mountains or the White Mountains to control or limit tree encroachment into meadow habitat.

Recreation, Development, Land Use, and Land Management

Agricultural land use in the Sacramento Mountains appears to have shifted from cultivation in the early part of the 20th century to pasture use. This conversion likely affected a potentially significant food resource (i.e., crops) for Peñasco least chipmunks in the Sacramento Mountains, specifically James Canyon (Service 2018, p. 42). It is likely that the high-quality, abundant food resource of wheat and oat fields drew Peñasco least chipmunks to the fields and roads where the animals were easily observable, as early records noted that Peñasco least chipmunks were especially abundant along rail fences, eating oats and wheat at field edges (Bailey 1931, p. 91). However, Peñasco least chipmunks were also abundant in the open, mature ponderosa pine forests (Bailey 1931, p. 91). Peñasco least chipmunks were noted as abundant throughout the Sacramento Mountains during the early 1900s, in both natural open habitat and near agricultural fields (Service 2018, p. 43). The change in land use from crop fields to pasture for livestock likely impacted Peñasco least chipmunks by decreasing the availability of an abundant, high-quality food source. Grasslands in the bottom of canyons that are currently used for pasture or livestock are likely not usable by the Peñasco least chipmunk because the grasses are likely not tall enough to provide shelter and cover (Service 2018, p. 43).

U.S. Forest Service lands are managed for multiple uses. In the Sacramento Mountains, these uses currently include recreation, livestock grazing, and special use

permits for a variety of actions. Recreational use includes camping, hiking, biking, and motorized vehicle use, among other activities. The historical role of livestock grazing and timber harvest are described in the SSA report (Service 2018, pp. 30–38) in terms of altering forest composition, structure, and fire regimes. However, grazing within the White Mountains Wilderness Allotment has been closed for 20 years and will remain closed (Williams, pers. comm. 2020).

The most significant recreational, development, and land use activities likely to affect the Peñasco least chipmunk in the White Mountains are related to the opening, operating, and maintaining of the Ski Apache Resort on Lookout Mountain (Service 2018, p. 44). Access roads to Ski Apache and the adjacent Buck Mountain were constructed in 1960 (Dyer and Moffett 1999, p. 451). The Resort opened in 1961 and has since been owned and operated by the Mescalero Apache Tribe (Ski Apache Resort 2018, entire). Ski Apache hosts both winter and summer recreation and occurs mostly on Forest Service land, operating under a Special Use permit issued by the Forest Service. Some of the activities also occur on Mescalero Apache Tribal lands. We address impacts and use of the area regardless of ownership. Summer use of Ski Apache Resort includes gondola rides, mountain biking, hiking, and zip-lining (Service 2018, p. 44).

In 2016, three Peñasco least chipmunks were observed on two survey trap lines on Lookout Mountain within Ski Apache Resort (Service 2018, p. 45). Lookout Mountain was selected to survey for several reasons, the main one being that it is located in the same large patch of subalpine meadow/tundra as that of Sierra Blanca Peak (Frey and Hays 2017, p. 9), where many historical records show that Peñasco least chipmunk were located. Two of the three Peñasco least chipmunk observations in 2016 were located just off the access road that leads to, and is in close proximity to, the Ski Apache zip line infrastructure. Vehicle use on the access road and human use for the zip line have the

potential to be a stressor to the Peñasco least chipmunk due to vehicle strikes and disturbance from human presence.

Disease

A variety of pathogens and diseases have the potential to affect or have affected the Peñasco least chipmunk. Of these, sylvatic plague has the greatest likelihood of being a stressor to the subspecies (Service 2018, p. 46). The plague is caused by the bacteria *Yersinia pestis*, a highly virulent organism that can quickly cause lethal disease in susceptible mammals (Abbott and Rocke 2012, p. 7). Transmission of *Y. pestis* typically occurs through fleas, whereby fleas feed on infected hosts and move to new hosts. The plague is most commonly transmitted through fleas, but can also be transferred through inhalation, eating of infected animals, or through bites, scratches, or direct contact with infected animals, tissues, or fluids (Abbott and Rocke 2012, p. 18). Modes of transmission of *Y. pestis* in wildlife are likely similar, whereby flea transmission is most common, but other avenues may also occur.

Rodents are the major group of animals infected by *Y. pestis*, and some species may act as a reservoir or as an “amplifying host” for the organism (Abbott and Rocke 2012, p. 18). Generally, an amplifying host is a host in which disease agents, such as viruses or bacteria, increase in number (Abbott and Rocke 2012, p. 71); in this case, “amplifying hosts” also applies to hosts that are more uniformly susceptible to plague and undergo dramatic die-offs during outbreaks of plague (Abbott and Rocke 2012, p. 17). It is unknown if the plague has affected the Peñasco least chipmunk in the past, is currently affecting the subspecies now, or will in the future. However, there is supporting evidence that suggests that the plague has been and could be a significant stressor to the viability of Peñasco least chipmunk (Service 2018, p. 46).

The *Y. pestis* organism likely arrived in New Mexico at a time that is approximately coincident with observed declines of Peñasco least chipmunk populations

(that is, beginning in the early 1950s through the 1960s). Chipmunks, in general, and least chipmunks more specifically, have been tested in the laboratory and are susceptible to the plague (Quan and Karman 1962, p. 128). Some epizootics caused by the plague have been observed in chipmunks and other ground squirrels (Smith et al. 2010, entire).

Nonnative Species

Feral hogs have become established as a nuisance species in New Mexico and elsewhere in the United States (USDA Wildlife Services 2010, entire). In New Mexico, feral hogs occur within Lincoln and Otero Counties. One of the last remaining locations in New Mexico with significant feral hog numbers is the Lincoln National Forest, including the 47,000-acre USFS White Mountain Wilderness Area (USDA 2019, pp. 112-114). This area includes the majority of the known locations of recent Peñasco least chipmunk occurrences (Service 2018, pp. 47–48). Feral hogs are voracious, flexible, and opportunistic omnivores (USDA Wildlife Services 2010, p. 6) and will persistently root in an area until the resources are depleted (USDA Wildlife Services 2010, p. 7).

Rooting can be extremely destructive to habitat. Feral hogs cause long-term degradation of native ecosystems and plant communities and spread of invasive weeds through their rooting behavior (USDA Wildlife Services 2010, pp. 10–12, 19–20). In addition to influencing habitat, feral hogs consume a multitude of vertebrate and invertebrate species (USDA Wildlife Services 2010, p. 13). In 2010, USDA Wildlife Services (2010, p. 14) reported that 90% of the small mammal species listed under the Act were in areas of expanding feral hog populations and documented how feral hogs could influence small mammal populations through heavy and persistent predatory activities. In addition to direct predation, feral hogs can strip an area of food resources and are competitors with native species for food and water resources (USDA Wildlife Services 2010 pp. 12–13). An active feral hog population control program in the White and Sacramento Mountains of New Mexico by the U.S. Department of Agriculture ended

in 2018. It is anticipated that feral hog population in the White Mountains, including within the proposed Peñasco least chipmunk critical habitat, will exponentially increase as a result.

Additionally, feral hogs are susceptible to at least 30 viral and bacteriological diseases, 20 of which can be transmitted from non-human animals to humans, and at least 37 parasites have been identified (USDA Wildlife Services 2010, p. 15). Among the many diseases, pathogens, and parasites that feral hogs carry, in New Mexico feral hogs have tested positive for swine brucellosis and pseudorabies. While the ability of feral hogs to transfer disease to wildlife is not well-studied, pseudorabies virus is highly contagious, and rodents are reported as being susceptible (USDA Wildlife Services 2010, p. 15). The prevalence of antibodies of *Y. pestis* was reported for 17 species of mammals from the western United States (Abbott and Rocke 2012, p. 26); of those, feral hogs had the highest prevalence rate at 74%. Although the sample size for this assessment was relatively low (18 out of 23 were positive), these data demonstrate that feral hogs in both the Sacramento Mountains and White Mountains could contribute to disease dynamics in the small mammal communities in these mountain ranges (Abbott and Rocke 2012, p. 26).

Impacts from feral hogs may include rooting, predation, spreading diseases and parasites, spreading invasive weed species, and competition with native species for water and food resources (Service 2018, p. 48). We lack specific data demonstrating overlap of feral hog occurrence with Peñasco least chipmunk occurrence; however, feral hogs are known to occur in the vicinity of Peñasco least chipmunk habitat or areas formerly known to be occupied by the Peñasco least chipmunk (Service 2018, p. 48).

Small Population Size and Lack of Connectivity

Compared to large populations, small populations are more vulnerable to extirpation from environmental, demographic, and genetic stochasticity (random natural

occurrences), and unforeseen natural or unnatural catastrophes (Shaffer 1981, p. 131).

Small populations are less able to recover from losses caused by random environmental changes (Shaffer and Stein 2000, pp. 308–310), such as fluctuations in reproduction (demographic stochasticity), sweeping losses from disease events, or changes in the frequency or severity of wildfires (environmental stochasticity).

Another type of random fluctuation, genetic stochasticity, results from: (1) changes in gene frequencies due to the founder effect, which is the loss of genetic variation that occurs when a new population is established by a small number of individuals (Hedrick 2000, p. 226); (2) random fixation, or the complete loss of all but one allele at a locus (Hedrick 2000, p. 258); or (3) inbreeding depression, which is the loss of fitness or vigor due to mating among relatives (Hedrick 2000, p. 208).

Additionally, small populations generally have an increased chance of genetic drift, or random changes in gene frequencies from generation to generation that can lead to a loss of variation, and inbreeding (Ellstrand and Elam 1993, p. 225). Allee effects, when there is a positive relationship between any component of individual fitness and either numbers or density of conspecifics (Stephens et al. 1999, p. 186), may also occur when a population is in decline (Dennis 1989, pp. 481–538). In a declining population, an extinction threshold or “Allee threshold” (Berec et al. 2007, pp. 185–191) may be crossed, in which adults in the population either cease to breed or the population becomes so compromised that breeding does not contribute to population growth. Allee effects typically fall into three broad categories (Courchamp et al. 1999, pp. 405–410): lack of facilitation (including low mate detection and loss of breeding cues), demographic stochasticity, and loss of heterozygosity. Environmental stochasticity amplifies Allee effects (Dennis 1989, pp. 481–538; Dennis 2002, pp. 389–401). In Peñasco least chipmunks, random fixation and loss of heterozygosity have been observed (Sullivan 1985, pp. 431–433). The extinction risk for a subspecies represented by few small

populations is magnified when those populations are isolated from one another, as is the case for the White Mountains and the Sacramento Mountains (Service 2018, p. 50).

It is suspected that the White Mountains and Sacramento Mountains populations may have been physically separated over a long time period with little to no genetic interchange, based on morphometric differences in collected specimens (Sullivan 1985, pp. 424–425). However, connectivity could play an important role as it relates to the overall viability to the subspecies if it is found to be present in the Sacramento Mountains in the future. Connectivity between White Mountain and Sacramento populations would contribute to the number of reproductively active individuals in a population; mitigate the genetic, demographic, and environmental effects of small population size; and recolonize extirpated areas (Service 2018, pp. 48-49). Additionally, the fewer the populations a species or subspecies has, the greater the risk of extinction. The combination of a very small population in the White Mountains, a likely extirpated population in the Sacramento Mountains, and no population connectivity between the mountain ranges, synergistically interacting with the other stressors and potential stressors described above, greatly increases extinction risk for the Peñasco least chipmunk (Service 2018, p. 50). Because of this combination, the stressor of small population size is included in our analysis of future subspecies viability.

Conservation Actions

The White Mountains Wilderness Area within the Lincoln National Forest is currently closed to grazing and will remain closed for the recovery and protection of the Peñasco least chipmunk (Williams pers. comm. 2020). As part of the SSA, we also developed multiple future scenarios to capture the range of uncertainties regarding future threats and the projected responses by the Peñasco least chipmunk. Our scenarios included a continuing conditions scenario, which incorporated the current risk factors continuing on the same trajectory that they are on now. We also evaluated an optimistic

scenario and a scenario with increased stressors. Because we determined that the current condition of the Peñasco least chipmunk was consistent with an endangered species (see Determination of Species Status, below), we are not presenting the results of the future scenarios in this proposed rule. Please refer to the SSA report (Service 2018) for the full analysis of future scenarios.

Determination of Species Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an “endangered species” as a species that is “in danger of extinction throughout all or a significant portion of its range,” and a “threatened species” as a species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Act requires that we determine whether a species meets the definition of “endangered species” or “threatened species” because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

Status Throughout All of Its Range

The range of the Peñasco least chipmunk once included the Sacramento and White Mountains in Lincoln and Otero Counties in New Mexico. The Peñasco least chipmunk is now found in only one isolated population within the White Mountains. The one remaining population has low resiliency, meaning that the population has a low probability of remaining extant and withstanding periodic or stochastic disturbances under its current condition. Representation is low, with the loss of one of two populations within its historical range. Species-level genetic and ecological diversity is likely

extremely low, as one population is likely extirpated and the remaining population is small. Redundancy has declined dramatically because the Peñasco least chipmunk remains on the landscape in only one population. As such, the Peñasco least chipmunk is at greater risk of extinction due to a catastrophic event when compared to historical conditions.

The Peñasco least chipmunk faces threats that put it at risk of extinction, including vegetation shifts, wildfire, forest encroachment, recreation, development, land use, and land management (Factor A, nonnative species (Factors A and C), disease (Factor C), and small population size and lack of connectivity (Factor E). We found small population size to be the main threat to the species currently. The current population is small and isolated, making it vulnerable to catastrophic or stochastic events. The risk of species extinction from a disease outbreak, large wildfire, or extreme drought is high. The one remaining population is currently small and isolated, and we expect it to remain so in the future. Neither ongoing management activities, nor existing regulatory mechanisms (Factor D), are sufficient to mitigate the threats facing the Peñasco least chipmunk.

Based on the assessment of the species' resiliency, representation, and redundancy, which are at levels that put the species at risk of extinction throughout its range, we find the Peñasco least chipmunk meets the definition of an endangered species. We find that a threatened species status is not appropriate for the Peñasco least chipmunk because it is currently at risk of extinction.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. We have determined that the Peñasco least chipmunk is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Peñasco least chipmunk

warrants listing as endangered throughout all of its range, our determination is consistent with the decision in *Center for Biological Diversity v. Everson*, 2020 WL 437289 (D.D.C. Jan. 28, 2020), in which the court vacated the aspect of the Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s Definitions of “Endangered Species” and “Threatened Species” (79 FR 37578; July 1, 2014) that provided the Services do not undertake an analysis of significant portions of a species’ range if the species warrants listing as threatened throughout all of its range.

Determination of Status

Our review of the best available scientific and commercial information indicates that the Peñasco least chipmunk meets the definition of an endangered species. Therefore, we propose to list the Peñasco least chipmunk as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation by Federal, State, Tribal, and local agencies, as well as private organizations and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species.

The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning consists of preparing draft and final recovery plans, beginning with the development of a recovery outline and making it available to the public within 30 days of a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan also identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (“downlisting”) or removal from protected status (“delisting”), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outlines, draft recovery plans, and the final recovery plans will be available on our website (<https://www.fws.gov/endangered>), or from our New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.*, restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily

or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If this species is listed, funding for recovery actions may be available from a variety of sources, including Federal budgets, State programs, and cost share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of New Mexico may be eligible for Federal funds to implement management actions that promote the protection or recovery of the Peñasco least chipmunk. Information on our grant programs that are available to aid species recovery can be found at <https://www.fws.gov/grants>.

Although the Peñasco least chipmunk is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for the species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph may include, but are not limited to, management and any other landscape-altering activities on Federal lands including those administered by the U.S. Forest Service, issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) permits by the U.S. Army Corps of Engineers, and construction and maintenance of roads or highways by the Federal Highway Administration.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered wildlife. The prohibitions of section 9(a)(1) of the Act, codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these) endangered wildlife within the United States or on the high seas. In addition, it is unlawful to import; export; deliver, receive, carry, transport, or ship in interstate or foreign commerce in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any species listed as an endangered species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to employees of the Service, the National Marine Fisheries Service, other Federal land management agencies, and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22. With regard to endangered wildlife, a permit may be issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

It is our policy, as published in the *Federal Register* on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. Based on the best available information, the following actions are unlikely to result in a violation of section 9, if these activities are carried out in accordance with existing regulations and permit requirements; this list is not comprehensive:

- (1) Winter activities at the ski resort;
- (2) Hiking on established trails; and
- (3) Routine road maintenance.

Based on the best available information, the following activities may potentially result in a violation of section 9 of the Act if they are not authorized in accordance with applicable law; this list is not comprehensive:

Activities that the Service believes could potentially harm the Peñasco least chipmunk and result in “take” include, but are not limited to:

- (1) Unauthorized handling or collection of the species;
- (2) Creation and modification of trails;
- (3) Ski resort maintenance during summer months; and
- (4) Organized mountain bike races.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

II. Proposed Critical Habitat Designation

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals). Additionally, our regulations at 50 CFR 424.02 define the word "habitat" as follows: "for the purposes of designating critical habitat only, habitat is the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species."

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. The designation also does not allow the government or public to access private lands, nor does designation require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement “reasonable and prudent alternatives” to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act’s definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features that occur in specific occupied areas, we focus on the specific features that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, prey, vegetation, symbiotic

species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. When designating critical habitat, the Secretary will first evaluate areas occupied by the species. The Secretary will consider unoccupied areas to be essential only where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

As discussed in the SSA Report (Service 2018, p. 50), there is currently no imminent threat of collection or vandalism identified under Factor B for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In our SSA and the above proposed listing determination for the Peñasco least chipmunk, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to the Peñasco least chipmunk and that those threats in some way can be addressed by section 7(a)(2) consultation measures. The species occurs

wholly in the jurisdiction of the United States and we are able to identify areas that meet the definition of critical habitat. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) have been met and because there are no other circumstances the Secretary has identified for which this designation of critical habitat would be not prudent, we have determined that the designation of critical habitat is prudent for the Peñasco least chipmunk.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the Peñasco least chipmunk is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.”

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where the species is located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for the Peñasco least chipmunk.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and that may require special management considerations or protection. The regulations at 50 CFR

424.02 define “physical or biological features essential to the conservation of the species” as the features that occur in specific areas and that are essential to support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, the Service may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

We derive the specific physical or biological features essential for the Peñasco least chipmunk from studies of the species' habitat, ecology, and life history.

Peñasco least chipmunk habitat is characterized as high-elevation subalpine habitat in the White Mountains, composed of Thurber's fescue (*Festuca thurberi*) meadows, where rock outcrops or talus are present (Frey and Hays 2017, p. 34). Subalpine Thurber's fescue meadow/grassland community occurs within openings in high-elevation spruce-fir forest and above tree line in the glacial cirque. These Thurber's fescue grasslands contain tall bunchgrasses, including Thurber's fescue, sedges, flowering forbs, and shrubs (Frey and Hays 2017, pp. 2–3). Bunchgrasses and forbs provide cover from predators. The elevation of subalpine habitat in the White Mountains ranges from 2,500 m to 3,597 m (8,200 ft to 11,800 ft). Forage for Peñasco least chipmunks consists of the seeds and flowers of forbs, particularly species of Asteraceae (Frey and Hays 2017, p. 34). The diet also includes flowers and fruits of gooseberry (*Ribes* spp.) and wild strawberry (*Fragaria* spp.), pinyon (*Pinus edulis*) nuts, Gambel oak (*Quercus gambelii*) acorns, insects, and other items (Sullivan 1993, p. 3).

The Peñasco least chipmunk is likely extirpated from the Sacramento Mountains, and the habitat no longer supports the species; therefore, we did not include the Sacramento Mountains in our critical habitat designation or analysis of physical or biological features. The habitat occupied by Peñasco least chipmunks is different for the subspecies in the White Mountains versus the Sacramento Mountains. A full description of the needs of individuals, populations, and the species is available in the SSA report.

Summary of Essential Physical or Biological Features

In summary, we derive the specific physical or biological features essential to the conservation of Peñasco least chipmunk from studies of this species' habitat, ecology, and life history as described in the **Background** portion of this rule, above. Additional information can be found in the SSA Report (Service 2018) available on the Internet at

<https://www.regulations.gov> under Docket No. FWS–R2–ES–2020–0042. We have determined that the following physical or biological features are essential to the conservation of the Peñasco least chipmunk:

- (1) Areas within the White Mountains:
 - (a) Between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet),
 - (b) That contain rock outcrops or talus, and
 - (c) That are subalpine Thurber’s fescue meadow/grassland communities found within openings of spruce-fir forest, above tree line in the glacial cirque, containing tall bunchgrasses, including Thurber’s fescue, sedges, flowering forbs, and shrubs.
- (2) Forage, including species of Asteraceae, flowers and fruits of gooseberry (*Ribes* spp), wild strawberry (*Fragaria* spp.), pinyon (*Pinus edulis*) nuts, Gambel oak (*Quercus gambelii*) acorns, and insects.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of the Peñasco least chipmunk may require special management considerations or protections to reduce the following threats: (1) forest encroachment due to altered fire regime; (2) recreation, development, land use, and land management; (3) destruction of habitat by nonnative species (feral hogs); and (4) disease.

Management activities that could ameliorate these threats include, but are not limited to: prescribed fire and forest management to maintain the open subalpine meadows with native vegetation; continued closure of the encompassing Forest Service allotment to grazing; disease management; and feral hog management.

In summary, we find that the occupied areas we are proposing to designate as critical habitat contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations or protection. Special management considerations or protection may be required of Federal agencies that may take actions in designated critical habitat in order to eliminate, or to reduce to negligible levels, the threats affecting the physical and biological features of the unit.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the subspecies to be considered for designation as critical habitat.

We are proposing to designate critical habitat in areas within the geographical area that was occupied by the species at the time of listing. We also are proposing to designate specific areas outside the geographical area that was occupied by the species at the time of listing because we have determined that a designation limited to occupied areas would be inadequate to ensure the conservation of the species. Furthermore, we conclude there is a reasonable certainty that the unoccupied area will contribute to the conservation of the species and contains one or more of those physical or biological features essential to the conservation of the species. We have also determined that the unoccupied area falls within the regulatory definition of “habitat” at 50 CFR 424.02.

The current distribution of the Peñasco least chipmunk is much reduced from its historical range. We anticipate that recovery will require continued protection of the

existing population and its habitat, and potentially reintroduction of Peñasco least chipmunk into historically occupied areas in the Sacramento Mountains, ensuring there are adequate numbers in both of the two historical locations. This strategy will help to ensure that catastrophic events, such as the effects of fire, cannot simultaneously affect all known populations. Rangewide recovery considerations, such as maintaining existing genetic diversity and striving for connectivity within portions of the species' current range to allow adequate movement to assure genetic diversity, were considered in formulating this proposed critical habitat.

Sources of data for this proposed critical habitat designation include multiple reports and discussions with species experts, including New Mexico Department of Game and Fish (see SSA report). We have also reviewed available information that pertains to the habitat requirements of this species. Sources of information on habitat requirements include studies conducted at occupied sites and published in peer-reviewed articles and agency reports, and data collected during monitoring efforts.

Areas Occupied at the Time of Listing

The proposed critical habitat designation does not include all areas known to have been occupied by the Peñasco least chipmunk historically; instead, it focuses on the currently occupied area within the historical range that retains the necessary physical or biological features that will allow for the maintenance and expansion of the existing population. We are not proposing any critical habitat in the Sacramento Mountains because we conclude that the area no longer has the ability to support the species.

We delineated occupied and unoccupied critical habitat unit boundaries using the following geospatial methodology:

- (1) First, we compiled all known Peñasco least chipmunk observations (i.e., captures) in the White Mountains from 1931-2018, mapped their locations, and eliminated duplicate records. This process provided a bounded estimate of the

subspecies' known range.

(2) Using existing U.S. Forest Service vegetation mapping for the Lincoln National Forest, we identified and exported all vegetation classes that coincided with the known observations. The vegetation classes included (1) mixed grass-forb and (2) Gambel oak, which are consistent with physical habitat descriptions for the subspecies in the White Mountains. Vegetation characterized by meadow/grassland community within openings of spruce-fir forest are one of the physical or biological features essential to the conservation of the Peñasco least chipmunk.

(3) Next, we determined the elevation interval in which the White Mountains population has been observed. We used that interval to further define the extent of the grass-forb and Gambel oak vegetation classes. Although the upper limit of the occupied interval did not extend to the highest points within the critical habitat units, we assumed that the Peñasco least chipmunk is capable of occupying these higher elevations as the difference (roughly 100 meters or 330 feet) is not substantial. Therefore, we extended the interval to include the highest peaks within each unit. This process resulted in a basic model of potential habitat.

(4) Finally, we refined the output of step 3 (above) through aerial photo interpretation in order to correct for the coarse resolution imparted by the vegetation mapping. Essentially, this process allows the model to be more accurate and applicable at a finer scale.

The critical habitat area was mapped using ArcMap version 10.6.1 (Environmental Systems Research Institute, Inc. 2018), a Geographic Information Systems (GIS) computer application. We identified two critical habitat units in the White Mountains known to be occupied by Peñasco least chipmunks as of 2019. We identified a third critical habitat unit between these two occupied units that has the physical and biological features required by the Peñasco least chipmunk but has not yet been surveyed

for occupancy.

We have determined that a designation limited to the two occupied units would be inadequate to ensure the conservation of the subspecies because there is only one remaining population, which has low resiliency and no redundancy, making it vulnerable to catastrophic or stochastic events and further compounding the risks of small population sizes. The risk of subspecies extinction from a disease outbreak, large wildfire, or extreme drought is high. A low-resiliency single population provides no redundancy for the species, and a single catastrophic event could cause species extinction.

Areas Outside the Geographic Area Occupied at the Time of Listing

Because we have determined known occupied areas alone are not adequate for the conservation of the species, we have evaluated whether any unoccupied areas are essential for the conservation of the species. We are proposing as critical habitat one unit situated between the two known occupied units that is currently considered unoccupied because of a lack of survey data. We have determined that it is essential for the conservation of the species as it provides important connectivity between the two occupied units and could support population expansion into this area, if not populated already. Limited functional habitat exists within the White Mountains, and connectivity between known locations of Peñasco least chipmunk is essential to the conservation of the subspecies because it provides more of the physical or biological features upon which the subspecies depends for feeding, sheltering and reproducing. This unit provides a link between the two known occupied units. The unit has all of the physical or biological features necessary for the conservation of the Peñasco least chipmunk; it's in the White Mountains, at elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet), with rock outcrop, and the vegetation is characterized by meadow/grassland community within openings of spruce-fir forests.

Small, isolated populations of animals with restricted movement and low genetic diversity are more likely to become extirpated than larger populations with greater movement between sub-populations within them and greater genetic diversity. Due to the small population sizes found within the two occupied units, either or both could become extirpated from local catastrophic events or the deleterious effects of genetic bottlenecks resulting from inbreeding that reduces the viability of a population, if they had no connectivity. The unoccupied unit in between these two known occupied units has never been surveyed for Peñasco least chipmunk, due to its remoteness and difficulty to access. It does, however, maintain all the physical or biological features of the occupied areas. We analyzed this using remote GIS vegetation and landscape feature data from the U.S. Forest Service and the U.S. Department of Agriculture National Agricultural Imagery Program. It is possible the Peñasco least chipmunk is present in the unoccupied unit; however, with no confirmed records, we are treating it as unoccupied for purposes of this designation. Physical or biological features essential to the conservation of Peñasco least chipmunk are areas within the White Mountains, between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet), that contain rock outcrops, and vegetation associated with meadow/grassland communities within openings of spruce-fir forests. This unoccupied unit provides all of the physical or biological features to allow for breeding, feeding, sheltering and dispersal of Peñasco least chipmunk. The unoccupied unit is within the White Mountains with varying elevations between 2,500 – 3,597 meters (8,200 – 11,800 feet), and rock outcrops, and approximately 44 percent of this unit is classified as grass-forb mix or Gambel oak. We find that this unit currently contains the resources and conditions necessary to support multiple life processes (i.e., breeding, feeding, sheltering and dispersal) of the Peñasco least chipmunk.

General Information on the Maps of the Proposed Critical Habitat Designation

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Proposed Regulation Promulgation**. We include more detailed information on the boundaries of the proposed critical habitat designation in the discussion of individual units, below. We will make the coordinates or plot points or both on which each map is based available to the public on <https://www.regulations.gov> under Docket No. FWS–R2–ES–2020–0042.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by pavement, buildings, and other structures because such lands lack physical or biological features necessary for the Peñasco least chipmunk. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation under the Act with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We propose to designate as critical habitat lands that we have determined are occupied at the time of listing (i.e., currently known to be occupied) and that contain one or more of the physical or biological features essential to support life-history processes of the species. We have determined that the known occupied areas are inadequate to ensure the conservation of the species. Therefore, we have also identified, and propose for designation as critical habitat, unoccupied areas that are essential for the conservation of the species. For those unoccupied areas, we have determined that it is reasonably certain

that the unoccupied areas will contribute to the conservation of the species and contain one or more of the physical or biological features that are essential to the conservation of the species. We have also determined that the unoccupied areas fall within the regulatory definition of “habitat” at 50 CFR 424.02.

Proposed Critical Habitat Designation

We are proposing to designate approximately 2,660 hectares (6,574 acres) in three units in New Mexico as critical habitat for the Peñasco least chipmunk. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Peñasco least chipmunk. The three distinct units we propose as critical habitat are: (1) Nogal Peak, (2) Crest Trail, and (3) Sierra Blanca. Two of the units are currently occupied by the subspecies and the occupancy status by the subspecies of one of the units is currently unknown but contains the physical and biological features and is essential to the conservation of the subspecies. All units proposed may require special management considerations or protection to address stressors associated with managing prescribed and wildland fire, road management and maintenance, development and use around Ski Apache Resort, feral hog management, and plague management. Table 4, below, shows the proposed units’ names, land ownership, and approximate area. Land ownership is predominantly Federal. Unit 3 consists of Federal and Tribal lands.

Table 4. Proposed critical habitat units for the Peñasco least chipmunk.

Critical Habitat Unit	Occupied at the Time of Listing	Ownership	Area of Unit in Hectares (Acres)	Area of overlap with Mexican spotted owl designated critical habitat	Overlap with Lincoln National Forest Wilderness Area
Unit 1. Nogal Peak	Yes	Federal	393 (972)	100 % 393 hectares 972 acres	100 % 393 hectares 972 acres
Unit 2. Crest Trail	No	Federal	910 (2,249)	89.5 % 814 hectares 2,011 acres	100 % 910 hectares 2,249 acres

Unit 3. Sierra Blanca	Yes	Federal; Tribal	1,357 (3,353)	56.9 % 772 hectares 1,098 acres	17.2 % 234 hectares 577 acres
Total				2,660 (6,574)	

Unit 1: Nogal Peak, New Mexico

Unit 1 consists of approximately 393 hectares (972 acres) of subalpine habitat within the Lincoln National Forest Wilderness Area and is occupied. This unit is within the critical habitat designation in Lincoln County, New Mexico, for the Mexican spotted owl, which is listed as a threatened species under the Act. Elevation ranges approximately 2,570–3,031 m (8,432–9,944 ft) above mean sea level (MSL). Mean elevation in Unit 1 is 2,772 m (9,094 ft) with a standard deviation of 70 meters (230 ft). Approximately 79 percent of Unit 1 is classified as grass-forb mix or Gambel oak. Unit 1 contains all the physical or biological features that are essential to the conservation of the species; it is within the White Mountains, between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet), with rock outcrops and talus, and 79 percent of the unit is characterized by meadow/grassland community within opening of spruce-fir forests. This unit is federally owned by the U.S. Forest Service; it is 100 percent within the Lincoln National Forest Wilderness Area. Threats to the unit include forest encroachment into the open meadows, grazing, and destruction of habitat by nonnative species (feral hogs); these can be ameliorated through prescribed fire and forest management to maintain the open subalpine meadows with native vegetation, continued closure of the encompassing Forest Service allotment to grazing, and feral hog management.

Unit 2: Crest Trail, New Mexico

Unit 2 consists of approximately 910 hectares (2,249 acres) of subalpine habitat. Although it is considered unoccupied, Unit 2 contains the physical or biological features essential to the conservation of the species and serves as a connectivity corridor between Unit 1 and Unit 3. Due to the location between Units 1 and 3 and the overall suitability of

the habitat, it is possible the Peñasco least chipmunk is present in the unoccupied unit; however, with no confirmed records, we are treating it as unoccupied for purposes of this designation. Approximately 89 percent of this unit is within the critical habitat designation for the Mexican spotted owl in Lincoln County, New Mexico. This unit is federally owned by the U.S. Forest Service and is 100 percent within the Lincoln National Forest Wilderness Area. Elevation ranges approximately 2,621–3,292 m (8,599–10,800 ft) above MSL. Mean elevation in Unit 2 is 2,876 m (9,436 ft) with a standard deviation of 139 meters (456 ft). Approximately 44 percent of Unit 2 is classified as grass-forb mix or Gambel oak. Unit 2 contains all the physical or biological features that are essential to the conservation of the species; it is within the White Mountains, between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet), with rock outcrops and talus, and 44 percent of the unit is characterized by meadow/grassland community within openings of spruce-fir forests.

Unit 3: Sierra Blanca, New Mexico

Unit 3 includes approximately 1,357 hectares (3,353 acres) of subalpine habitat, contains the physical or biological features that are essential to the conservation of the species, and is known to be occupied. The proportion of Unit 3 located on Mescalero Tribal lands is approximately 581 hectares (1,435 acres) or 43 percent. The unit contains the Ski Apache Resort; the land is owned by the U.S. Forest Service, but managed under a permit by the Mescalero Apache Tribe. The resort occupies 543 hectares (1,431 acres), 40 percent of the unit. The remaining 17 percent is U.S. Forest Service land, part of the Lincoln National Forest Wilderness Area. Approximately 57 percent of the unit is also Mexican spotted owl critical habitat in Lincoln and Otero Counties, New Mexico. Elevation ranges approximately 2,763–3,638 m (9,065–11,936 ft) above MSL. Mean elevation in Unit 3 is 3,219 m (10,561 ft) with a standard deviation of 145 m (476 ft). Approximately 52 percent of Unit 3 is classified as grass-forb mix or Gambel oak. Unit 3

contains all the physical or biological features that are essential to the conservation of the species; it is within the White Mountains, between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet), with rock outcrops and talus, and 52 percent of the unit is characterized by meadow/grassland community within openings of spruce-fir forests. Threats to the unit include forest encroachment into the open meadows, recreation, development, land use, and land management, grazing, and destruction of habitat by nonnative species (feral hogs); these can be ameliorated through prescribed fire and forest management to maintain the open subalpine meadows with native vegetation, continued closure of the encompassing Forest Service allotment to grazing, and feral hog management.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation, we have listed a new species or designated critical habitat that may be affected by the Federal action, or the action has been modified in a manner that affects the species or critical habitat in a way not considered in the previous consultation. In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but the regulations also specify some exceptions to the requirement to reinitiate consultation on specific land management plans after subsequently listing a new species or designating new critical habitat. See the regulations for a description of those exceptions.

Application of the "Destruction or Adverse Modification" Standard

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that the Services may, during a consultation under section 7(a)(2) of the Act, find are likely to destroy or adversely modify critical habitat include, but are not limited to:

- (1) Management of the Ski Apache Resort to include maintaining ski runs or recreational paths that are clear of trees, maintaining existing roads through grading, and maintaining facilities that include structures and features for ski lifts, the gondola, and zip line;
- (2) Forest management activities, including timber harvest, prescribed fire, etc.;
- (3) Road maintenance activities; and
- (4) Recreation site maintenance and development of new sites, including trails.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.” There are no Department of Defense (DoD) lands with a completed INRMP within the proposed critical habitat designation.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make

revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if we determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless we determine, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face and the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

Lands owned by the Mescalero Apache Tribe are included in this critical habitat proposal. We are considering these lands for exclusion from critical habitat (see **Exclusions**, below). However, the final decision on whether to exclude any areas will be based on the best scientific data available at the time of the final designation, including information we obtain during the comment period and information about the economic impacts of the designation. Accordingly, we have prepared a draft economic analysis (DEA) concerning the proposed critical habitat designation, which is available for review and comment (see **ADDRESSES**, above).

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and

its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (*e.g.*, under the Federal listing as well as other Federal, State, and local regulations). The baseline, therefore, represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.*, conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary section 4(b)(2) exclusion analysis.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the Peñasco least chipmunk (Industrial Economics, Incorporated (IEc) 2019).

We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in

incremental economic impacts. The purpose of the screening analysis is to filter out the geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.*, absent critical habitat designation) and includes probable economic impacts where land and water use may be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. If there are any unoccupied units in the proposed critical habitat designation, the screening analysis assesses whether any additional management or conservation efforts may incur incremental economic impacts. This screening analysis, combined with the information contained in our IEM, is what we consider our draft economic analysis (DEA) of the proposed critical habitat designation for the Peñasco least chipmunk and is summarized in the narrative below.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation.

In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the Peñasco least chipmunk, first we

identified, in the IEM dated July 2019, probable incremental economic impacts associated with certain activities. These activities include (1) management of the Ski Apache Resort, to include maintaining: ski runs or recreational paths that are clear of trees, existing roads through grading, and facilities that include structures and features for ski lifts, the gondola, and zip line (permitted by the U.S. Forest Service); and (2) road management, maintenance, and new construction (U.S. Forest Service). We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. If we list the species, in areas where the Peñasco least chipmunk is present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If, when we list the species, we also finalize this proposed critical habitat designation, consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

In our IEM, we attempted to clarify the distinction between the effects that would result from the species being listed and those attributable to the critical habitat designation (*i.e.*, the difference between the jeopardy and adverse modification standards) for the Peñasco least chipmunk's critical habitat. Because the designation of critical habitat for the Peñasco least chipmunk was proposed concurrently with the listing, it has been our experience that it is more difficult to discern which conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. However, the following specific circumstances in this case help to inform our evaluation: (1) The essential physical and biological features identified for critical habitat are the same features essential for the life requisites of the species, and

(2) any actions that would result in sufficient harm or harassment to constitute jeopardy to the Peñasco least chipmunk would also likely adversely affect the essential physical and biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

We have identified and delineated three proposed critical habitat units, totaling approximately 2,660 hectares (6,574 acres), two of which are currently occupied by the Peñasco least chipmunk and one that is unoccupied but essential to the conservation of the subspecies. The two occupied units (Units 1 and 3) are considered occupied year-round for the purposes of consultation based on current survey data. In the occupied area, any actions that may affect the species or its habitat would also affect designated critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the Peñasco least chipmunk. While this additional analysis in the occupied critical habitat would require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant.

One of the proposed critical habitat units (Unit 2) is unoccupied. No surveys for Peñasco least chipmunk have been done in the unit. We assume any costs associated with this unit would be attributable to critical habitat rather than the listing of the species.

Federal agencies are the entities most likely to incur incremental costs associated with designating critical habitat, due to section 7 requirements. We do not anticipate any costs to State or local agencies, or impacts on property values related to the public's

perception of additional regulation, because we do not expect the designation of critical habitat for the Peñasco least chipmunk to result in changes to New Mexico local regulations (IEc 2019, p. 16).

At most, no more than two Peñasco least chipmunk consultations (two informal) are anticipated in any given year (IEc 2019, p. 8). Most of the proposed critical habitat occurs within Lincoln National Forest Wilderness Area, where little work and no commercial activities occur; it is also existing Mexican spotted owl critical habitat. In the past 3 years there have not been any section 7 consultations in this area. The estimated incremental costs of the total critical habitat designation for the Peñasco least chipmunk in the first year are unlikely to exceed \$5,000 (2019 dollars) (IEc 2019, p. 9). Thus, the annual administrative burden would not reach \$100 million.

As we stated earlier, we are soliciting data and comments from the public on the DEA and all aspects of the proposed rule and our required determinations. During the development of a final designation, we will consider the information presented in the DEA and any additional information on economic impacts received during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90. If we receive credible information regarding the existence of a meaningful economic impact or other relevant impact supporting a benefit of exclusion, we will conduct an exclusion analysis for the relevant area or areas. We may also otherwise decide to exercise the discretion to evaluate any other areas for possible exclusion. In addition, if we do conduct an exclusion analysis and we have received any information from experts in, or sources with firsthand knowledge about, impacts that are outside the scope of the Service's expertise, for purposes of the exclusion analysis we will assign weights to those impacts consistent with the information from experts in, or sources with firsthand knowledge about, those impacts, unless we have rebutting

information. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Consideration of National Security Impacts or Homeland Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands where a national security impact might exist. In preparing this proposal, we have determined that the lands adjacent to the proposed designation of critical habitat for Peñasco least chipmunk are not owned or managed by the Department of Defense or Department of Homeland Security. We anticipate no impact on national security. However, during the development of a final designation we will consider any additional information received through the public comment period on the impacts of the proposed designation on national security or homeland security to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90.

Consideration of Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements, or candidate conservation agreements with assurances, or whether there are nonpermitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of Tribal conservation plans and partnerships and consider the government-to-government relationship of the United States with Tribal entities. We also consider any social impacts that might occur because of the designation.

There are currently no active HCPs or other management plans for the Peñasco

least chipmunk. We anticipate no impact on current partnerships or HCPs from this proposed critical habitat designation.

Tribal Lands

Several Executive Orders, Secretarial Orders, and policies concern working with Tribes. These guidance documents generally confirm our trust responsibilities to Tribes, recognize that Tribes have sovereign authority to control Tribal lands, emphasize the importance of developing partnerships with Tribal governments, and direct the Service to consult with Tribes on a government-to-government basis.

A joint Secretarial Order that applies to both the Service and the National Marine Fisheries Service (NMFS), Secretarial Order 3206, *American Indian Tribal Rights, Federal–Tribal Trust Responsibilities, and the Endangered Species Act* (June 5, 1997) (S.O. 3206), is the most comprehensive of the various guidance documents related to Tribal relationships and Act implementation, and it provides the most detail directly relevant to the designation of critical habitat. In addition to the general direction discussed above, S.O. 3206 explicitly recognizes the right of Tribes to participate fully in the listing process, including designation of critical habitat. The Order also states: “Critical habitat shall not be designated in such areas unless it is determined essential to conserve a listed species. In designating critical habitat, the Services shall evaluate and document the extent to which the conservation needs of the listed species can be achieved by limiting the designation to other lands.” In light of this instruction, when we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider exclusions of Tribal lands under section 4(b)(2) of the Act prior to finalizing a designation of critical habitat, and will give great weight to Tribal concerns in analyzing the benefits of exclusion.

However, S.O. 3206 does not preclude us from designating Tribal lands or waters as critical habitat, nor does it state that Tribal lands or waters cannot meet the Act’s

definition of “critical habitat.” We are directed by the Act to identify areas that meet the definition of “critical habitat” (i.e., areas occupied at the time of listing that contain the essential physical or biological features that may require special management or protection and unoccupied areas that are essential to the conservation of a species), without regard to landownership. While S.O. 3206 provides important direction, it expressly states that it does not modify the Secretaries’ statutory authority.

Mescalero Apache Tribal lands are included in the proposed designation of critical habitat for the Peñasco least chipmunk. Approximately 581 hectares (1,435 acres) of Tribal lands occupied by the Peñasco least chipmunk meet the definition of critical habitat. We will consider these areas for exclusion from the final critical habitat designation to the extent consistent with the requirements of section 4(b)(2) of the Act. We have notified the Mescalero Apache Tribe and requested their feedback. We will continue to coordinate with the Mescalero Apache Tribe, as well as any other Tribal entity who wishes to provide information to the Service regarding this proposed listing and critical habitat designation. A final determination on whether the Secretary will exercise the discretion to exclude any of these areas from critical habitat for the Peñasco least chipmunk will be made when we publish the final rule designating critical habitat. During the development of a final designation, we will consider all information currently available or received during the public comment period. If we receive credible information regarding the existence of a meaningful impact supporting a benefit of excluding any area, we will undertake an exclusion analysis and determine whether those areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90. We may also exercise the discretion to undertake exclusion analyses for other areas as well.

Required Determinations

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and

an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term

“significant economic impact” is meant to apply to a typical small business firm’s business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. There is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. In our draft economic analysis, we did not find that the designation of this proposed critical habitat would significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following finding:

(1) This proposed rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or Tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State

Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule would significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year; that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. Consequently, we do not believe that the proposed critical habitat designation would significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for Peñasco least chipmunk in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for the Peñasco least chipmunk, and it concludes that, if adopted, this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this proposed critical habitat designation with, appropriate State resource agencies. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the proposed rule does

not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the elements of physical or biological features essential to the conservation of the species. The proposed areas of designated critical habitat are presented on maps, and the proposed rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with listing species and designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). However, when the range of the species includes States within the Tenth Circuit, such as that of the Peñasco least chipmunk, under the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we undertake a NEPA analysis for critical habitat designation. We invite the public to comment on the extent to which this proposed regulation may have a significant impact on the human environment, or fall within one of the categorical exclusions for actions that have no individual or cumulative effect on the quality of the human environment. We will complete our analysis, in compliance with NEPA, before finalizing this proposed rule.

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951),

Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. In a letter dated November 27, 2017, we informed the Mescalero Apache Tribe of our intent to conduct a status assessment for the Peñasco least chipmunk. On July 5, 2018, we shared the draft of the SSA report with the Mescalero Apache Tribe for their partner review. We will continue to work with Tribal entities during the development of a final rule for the designation of critical habitat for the Peñasco least chipmunk.

References Cited

A complete list of references cited in this proposed rule is available on the Internet at <https://www.regulations.gov> and upon request from the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the New Mexico Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. Amend § 17.11(h), the List of Endangered and Threatened Wildlife, by adding an entry for “Chipmunk, Peñasco least” in alphabetical order under MAMMALS to read as set forth below:

§ 17.11 Endangered and threatened wildlife.

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(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
MAMMALS				
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Chipmunk, Peñasco least	<i>Neotamias minimus atristriatus</i>	Wherever found	E	[<i>Federal Register</i> citation when published as a final rule]; 50 CFR 17.95(a). ^{CH}
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3. Amend § 17.95(a) by adding an entry for “PEÑASCO LEAST CHIPMUNK (*NEOTAMIAS MINIMUS ATRISTRIATUS*)” after the entry for “WOODLAND CARIBOU (*RANGIFER TARANDUS CARIBOU*), SOUTHERN MOUNTAIN DISTINCT POPULATION SEGMENT (DPS),” to read as set forth below:

§ 17.95 Critical habitat—fish and wildlife.

(a) * * *

PEÑASCO LEAST CHIPMUNK (*NEOTAMIAS MINIMUS ATRISTRIATUS*)

(1) Critical habitat units are depicted for Lincoln and Otero Counties, New Mexico, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of Peñasco least chipmunk consist of the following components:

(i) Areas within the White Mountains:

(A) Between elevations of 2,500 – 3,597 meters (8,200 – 11,800 feet);

(B) That contain rock outcrops or talus; and

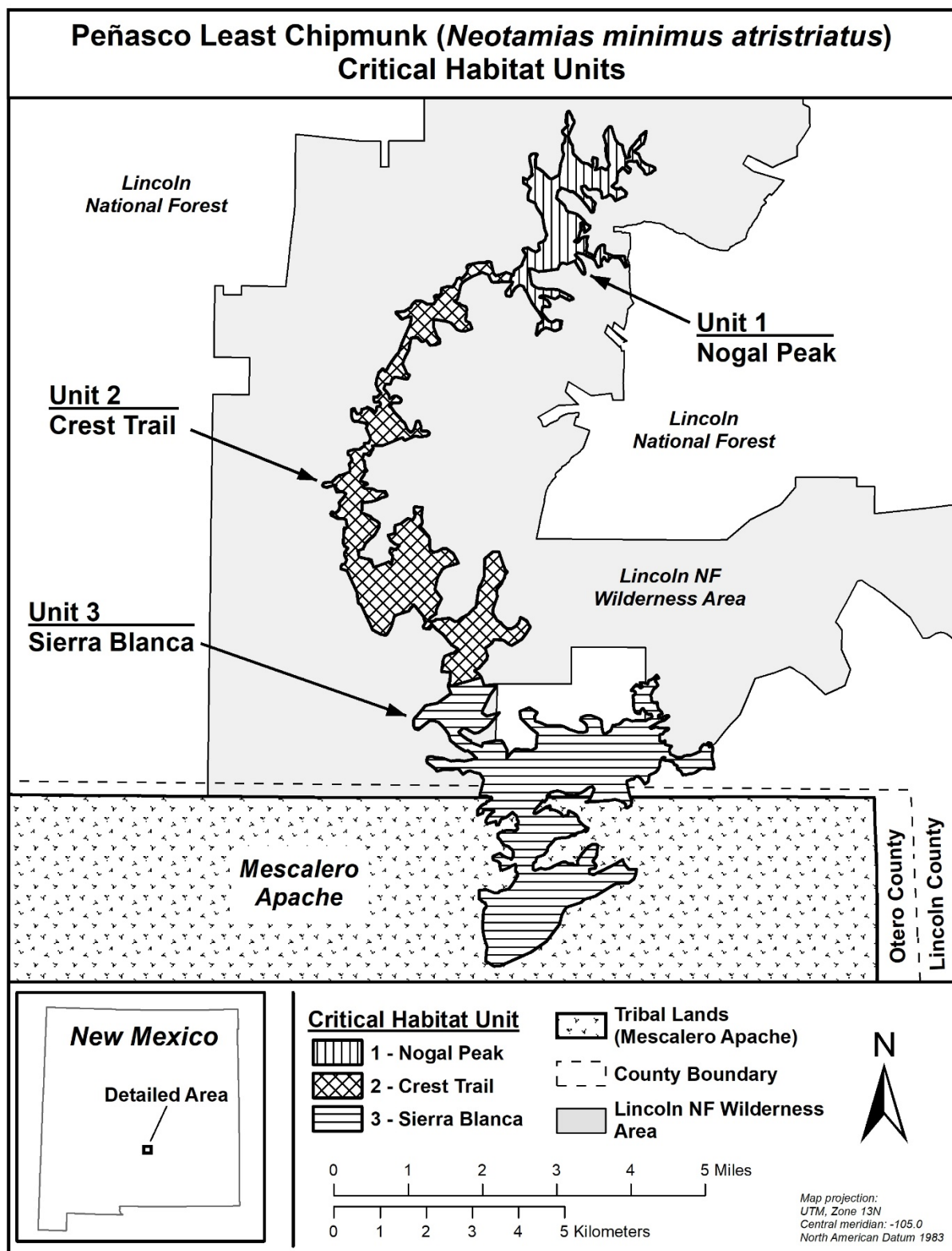
(C) That are subalpine Thurber's fescue meadow/grassland communities found within openings of spruce-fir forest, above tree line in the glacial cirque, containing tall bunchgrasses, including Thurber's fescue, sedges, flowering forbs, and shrubs.

(ii) Forage, including species of Asteraceae, flowers and fruits of gooseberry (*Ribes* spp), wild strawberry (*Fragaria* spp.), pinyon (*Pinus edulis*) nuts, Gambel oak (*Quercus gambelii*) acorns, and insects.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [EFFECTIVE DATE OF THE FINAL RULE].

(4) *Critical habitat map units.* Data layers defining map units were created using publicly available geospatial vegetation data for the Lincoln National Forest, 30-meter digital elevation models from the National Elevation Dataset, and 3-band county mosaics obtained from the National Agricultural Imagery Program. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at <https://www.regulations.gov> at Docket No. FWS-R2-ES-2020-0042 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) *Note:* Index map follows:

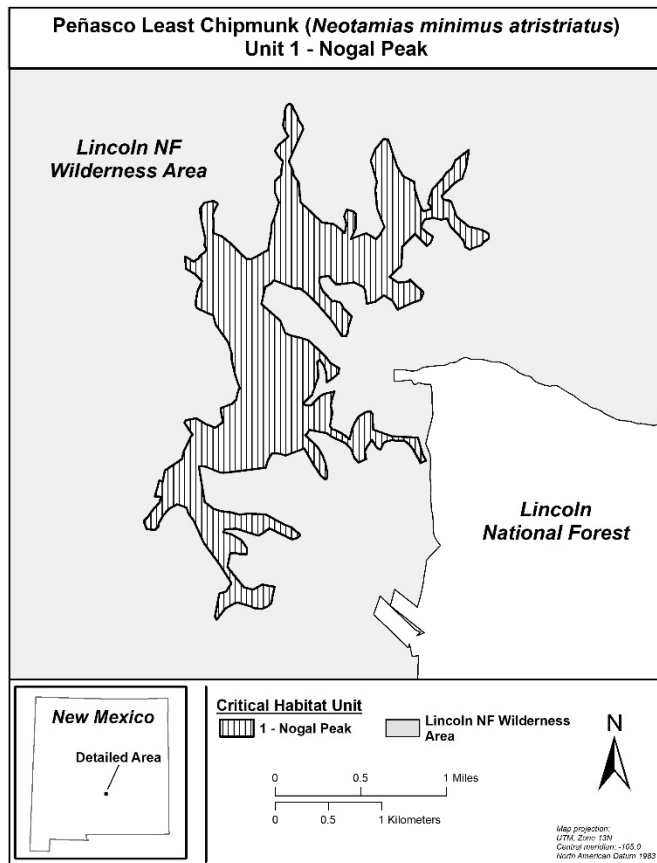


(6) Unit 1: Nogal Peak.

(i) Unit 1 consists of approximately 393 hectares (972 acres) of subalpine habitat within the Lincoln National Forest Wilderness Area and is considered occupied.

Elevation ranges approximately 2,570–3,031 meters (8,432–9,944 feet) above mean sea level.

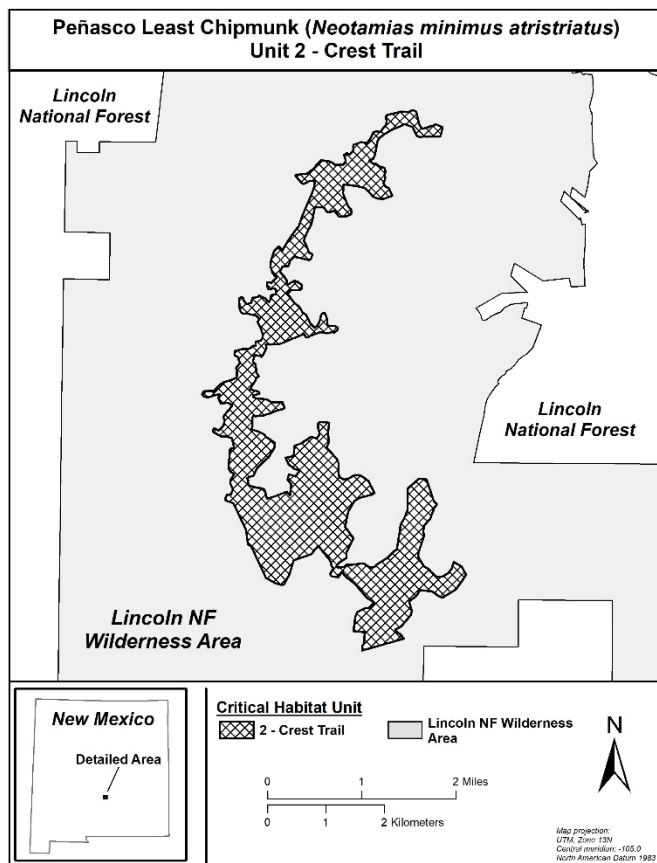
(ii) Map of Unit 1 follows:



(7) Unit 2: Crest Trail.

(i) Unit 2 consists of approximately 910 hectares (2,249 acres) of subalpine habitat located within the Lincoln National Forest Wilderness Area and is considered unoccupied. Elevation ranges approximately 2,621–3,292 meters (8,599–10,800 feet) above mean sea level.

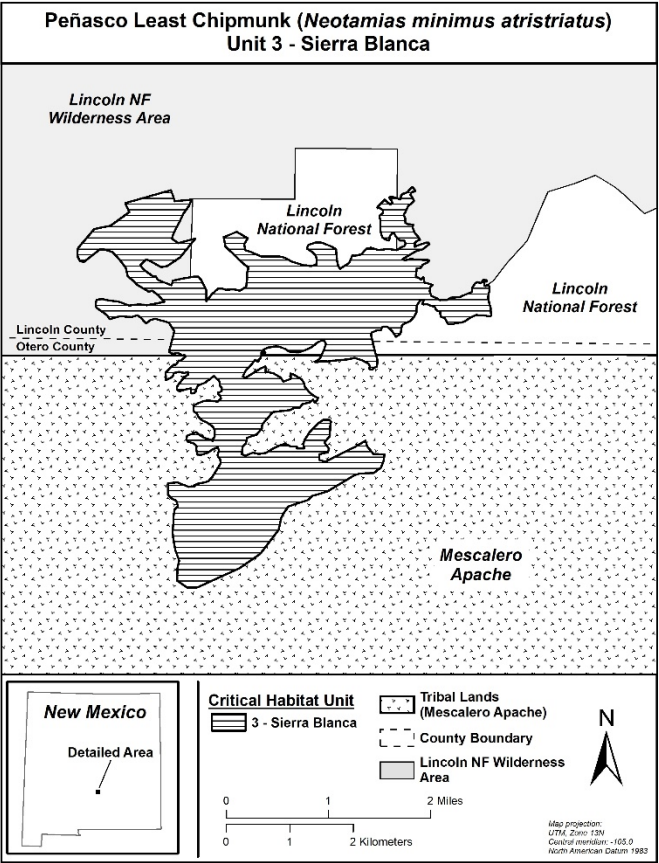
(ii) Map of Unit 2 follows:



(8) Unit 3: Sierra Blanca.

(i) Unit 3 includes approximately 1,357 hectares (3,353 acres) of subalpine habitat located within the Lincoln National Forest, the Lincoln National Forest Wilderness Area, and Mescalero Apache Tribal lands and is considered occupied. The portion of Unit 3 located on Mescalero Tribal lands is approximately 581 hectares (1,435 acres). Elevation ranges approximately 2,763–3,638 meters (9,065–11,936 feet) above mean sea level.

(ii) Map of Unit 3 follows:



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Martha Williams

Principal Deputy Director,

Exercising the Delegated Authority of the Director,

U.S. Fish and Wildlife Service.

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